Abstract of the Disclosure

The present invention relates to a method for tracking motion phase of an object. A plurality of projection data indicative of a cross-sectional image of the object is received. The projection data are processed for determining motion projection data of the object indicative of motion of the object based on the attenuation along at least a same line through the object at different time instances. A motion phase of the object with the object having the least motion is selected. Finally, projection data acquired at time instances within the selected motion phase of the object are selected for tomographical image reconstruction. Reconstructed images clearly show a substantial improvement in image quality by successfully removing motion artifacts using the method for tracking motion phase of an object according to the invention. The method is highly beneficial in cardiac imaging using X-ray CT scan.